

# BookletChart™



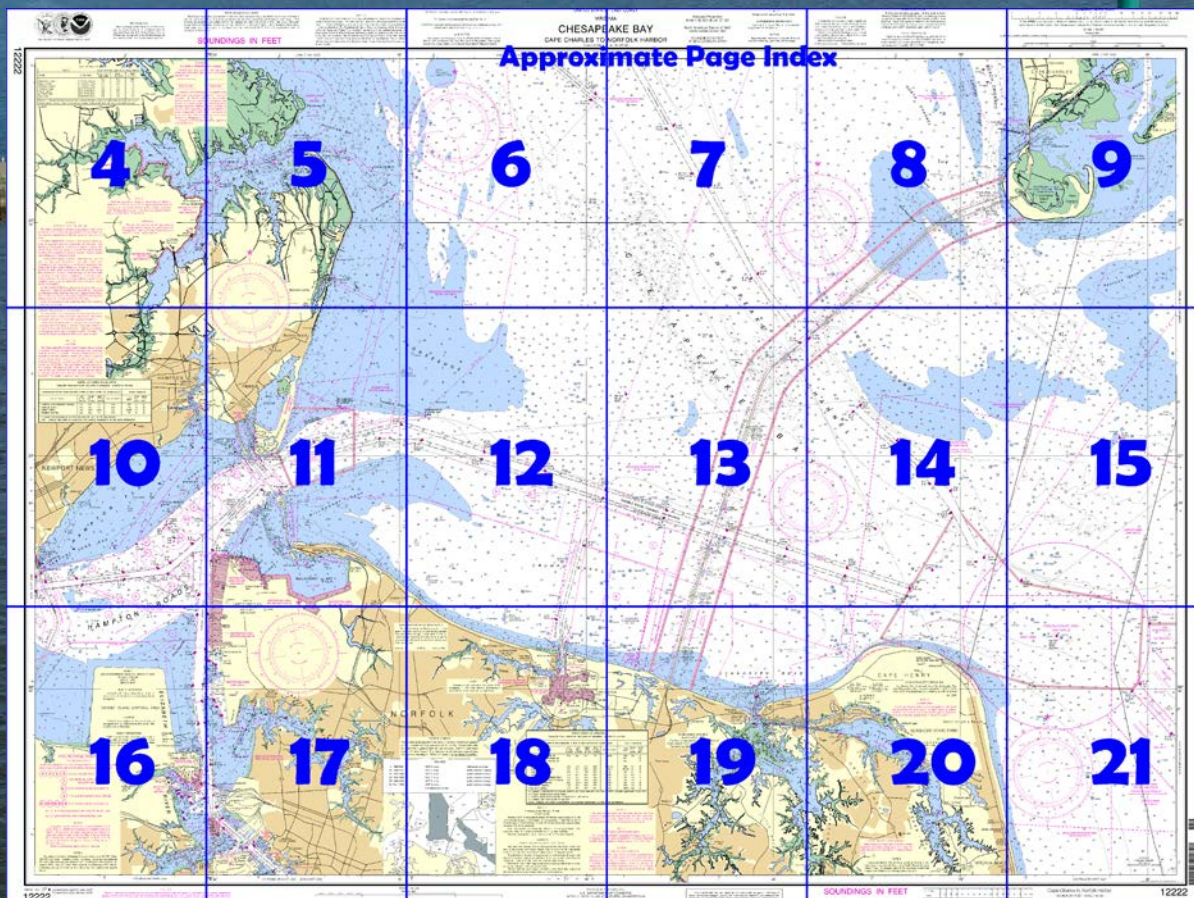
## **Chesapeake Bay – Cape Charles to Norfolk Harbor** NOAA Chart 12222

*A reduced-scale NOAA nautical chart for small boaters*

*When possible, use the full-size NOAA chart for navigation.*



- Complete, reduced-scale nautical chart
- Print at home for free
- Convenient size
- Up-to-date with Notices to Mariners
- Compiled by NOAA's Office of Coast Survey, the nation's chartmaker



**Published by the**  
**National Oceanic and Atmospheric Administration**  
**National Ocean Service**  
**Office of Coast Survey**  
[www.NauticalCharts.NOAA.gov](http://www.NauticalCharts.NOAA.gov)  
**888-990-NOAA**

### What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

### What is a BookletChart™?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

### Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at <http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=12222>



#### (Selected Excerpts from Coast Pilot)

**Cape Henry Light** (36°55.6'N., 76°00.4'W.), 164 feet above the water, is shown from an octagonal, pyramidal tower, upper and lower half of each face alternately black and white, on the beach near the turn of the **Chesapeake Bay Bridge** extends from Cape Charles to a point 6 miles westward of Cape Henry. Channel buoys, lights, daybeacons and fog signals mark the openings at Chesapeake and Thimble Shoal Channels. At night the floodlighted tunnel houses are

more prominent than the lights marking the channels.

The current velocity is 1.0 knot on the flood and 1.5 knots on the ebb in Chesapeake Bay Entrance.

Thimble Shoal Channel is a **Regulated Navigation Area** and draft limitations apply. A vessel drawing less than 25 feet may not enter the channel, unless the vessel is crossing the channel.

**Lynnhaven Roads** is used as an anchorage. The dumping ground in the western part has shoals and obstructions with depths as little as 11 feet; elsewhere depths are 20 to 28 feet.

There are two small craft openings in the Chesapeake Bay Bridge-Tunnel south of Thimble Shoal Channel. Each span has a clearance of 21 feet.

**Lynnhaven Inlet.** In 2000, the controlling depth in the entrance channel was 6½ feet. The inlet is marked by lights.

**Lynnhaven Bay** has a turning basin south of the highway bridge over the inlet. The bay has depths of 1 to 10 ft.

**Caution.**—The Chesapeake Bay Bridge-Tunnel complex has on several occasions suffered damage from vessels. In every case, adverse weather prevailed with accompanying strong winds from the northwest quadrant generally related to a frontal system. Weather deterioration in the lower bay is quite often sudden and violent and constitutes an extreme hazard to vessels operating or anchoring in this area. The proximity of the bridge-tunnel complex to main shipping channels and anchorages adds to the danger. Currents in excess of 3.0 knots can be expected in the area.

**Traffic Separation Scheme (Chesapeake Bay Entrance).**—The scheme provides for inbound-outbound traffic lanes to enter or depart Chesapeake Bay from the northeastward and from the southeastward. (See chart 12221.)

A precautionary area with a radius of 2 miles is centered on Chesapeake Bay Entrance Lighted Whistle Buoy CH (36°56'08"N., 75°57'27"W.). A racon is at the buoy.

The northeasterly inbound-outbound traffic lanes are separated by a line of four fairway buoys on bearing 250°-070°. The outermost buoy in the line is 6.4 miles 313° from Chesapeake Light and the innermost buoy is 4.5 miles 074° from Cape Henry Light.

The southeasterly approach is marked by Chesapeake Bay Southern Approach Lighted Whistle Buoy CB (36°49'00"N., 75°45'36"W.). A racon is on the buoy. The inbound/outbound traffic lanes are separated by a **Deep-Water Route** marked by lighted buoys on bearings 302°-122° and 317°-137°. The Deep-Water Route is intended for deep draft vessels and naval aircraft carriers entering or departing Chesapeake Bay. A vessel using the Deep-Water Route is advised to announce its intentions on VHF-FM channel 16 as it approaches Lighted Whistle Buoy CB on the south end, and Lighted Whistle Buoy CH on the north end of the route. All other vessels approaching the Chesapeake Bay Traffic Separation Scheme should use the appropriate inbound/outbound lanes of the northeasterly or southeasterly approaches.

The Coast Guard advises that upon entering the traffic lanes, all inbound vessels are encouraged to make a security broadcast on VHF-FM channel 13, announcing the vessel's name, location, and intentions.

**Currents.**—The current velocity is 1.0 knot on the flood and 1.5 knots on the ebb in Chesapeake Bay Entrance. (See the Tidal Current Tables for daily predictions.)

**Naval and general anchorages** are south of Thimble Shoal Channel. (See **110.1** and **110.168**, chapter 2, for limits and regulations.)

Thimble Shoal Channel is a **Regulated Navigation Area** and draft limitations apply. A vessel drawing less than 25 feet may not enter the channel, unless the vessel is crossing the channel. (See **165.501**, chapter 2, for limits and regulations.)

### **U.S. Coast Guard Rescue Coordination Center** **24 hour Regional Contact for Emergencies**

RCC Norfolk	Commander
5th CG District	(575) 398-6231
Norfolk, VA	



# Navigation Managers Area of Responsibility



**NOAA's navigation managers** serve as ambassadors to the maritime community.

They help identify navigational challenges facing professional and recreational mariners, and provide NOAA resources and information for safe navigation. For additional information, please visit [nauticalcharts.noaa.gov/service/navmanagers](http://nauticalcharts.noaa.gov/service/navmanagers)

To make suggestions or ask questions online, go to [nauticalcharts.noaa.gov/inquiry](http://nauticalcharts.noaa.gov/inquiry).

To report a chart discrepancy, please use [ocsdata.ncd.noaa.gov/idrs/discrepancy.aspx](http://ocsdata.ncd.noaa.gov/idrs/discrepancy.aspx).

## Lateral System As Seen Entering From Seaward

on navigable waters except Western Rivers



For more information on aids to navigation, including those on Western Rivers, please consult the latest USCG Light List for your area.

These volumes are available online at <http://www.navcen.uscg.gov>



The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.529" northward and 1.221" eastward to agree with this chart.

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

## 12222

Dashes (---) located in datum columns indicate unavailable datum values for a tide station. Real-time water levels, tide predictions, and tidal current predictions are available on the Internet from <http://tidesandcurrents.noaa.gov>.

(Jan 2015)

Covered wells may be marked by lighted or unlighted buoys.

NOTE J  
Restricted area 331.275 begins  
Creek at 37° 03' 50" N, 76° 22' 00" W  
of Langley Air Force Base 35 yards  
water (MHW) mark to a point in the  
River at 37° 06' 40" N, 76° 22' 55" W

**WARNING**  
No mariner will not rely solely on this chart for navigation, particularly on the U.S. Coast Guard Light List. Consult the Pilot for details.

NOTE G  
TRAFFIC SEPARATION SCHEME

The traffic separation scheme is designed to aid in the prevention of collisions at the approaches to Chesapeake Bay and does not supersede or alter the applicable Rules of the Road.

The RECOMMENDED routes for entering and departing from Chesapeake Bay are overprinted on this chart. The Northeast Approach is marked by a tinted magenta line centered on a line of fairway buoys which separates the courses of inbound and outbound vessels. Vessels should leave all buoys on their port hand.

It is **RECOMMENDED** that the following ships use the Southern Approach deep-water route when bound for Chesapeake Bay from sea or to sea from Chesapeake Bay: Deep-draft ships, drafts defined as 42 feet/12.8 meters or greater in fresh water, and naval aircraft carriers. Ships drawing less than 42 feet/12.8 meters may use the deep-water route when, in their master's judgment, the effects of ship characteristics, its speed, and prevailing environmental conditions may cause the draft of the ship to equal or exceed 42 feet/12.8 meters.

It is **RECOMMENDED** that a ship using the deep-water route:  
Announce its intention on VHF-FM channel 16 as it approaches  
Chesapeake Bay Southern Approach Lighted Whistle Buoy  
'CB' on the south end, or Chesapeake Bay Entrance Lighted  
Whistle Buoy 'CH', on the north end of the route;

Avoid, as far as practicable, overtaking other ships operating in the deep-water route;  
Keep as near to the outer limit of the route which lies on the starboard side as is safe and practicable.

All other ships approaching the Chesapeake Bay traffic separation scheme should use the appropriate inbound or outbound traffic lane of the traffic separation scheme.

Traffic within the precautionary area may consist of vessels operating between Thimble Shoal and Chesapeake Channels and one of the established traffic lanes. Mariners are advised to exercise extreme care in navigating within this area. The

Joins page 10

Printed at reduced scale.

~~SCALE 1:40,000~~  
Nautical Miles

See Note on page 5.

Note: Chart grid lines are aligned with true north.

4





# CHESAPEAKE

## CAPE CHARLES TOWNSHIP

Formerly C&GS 562.

### NOTE X

The 12-nautical mile Territorial Sea, established by Presidential Proclamation, and all laws apply. The Three Nautical Mile Line, previously identified as the territorial sea, is retained as it continues to depict the jurisdictional character of the laws. The 9-nautical mile Natural Resource Boundary off the Gulf coast states, and Puerto Rico, and the Three Nautical Mile Line elsewhere remain in the inner limit of Federal fisheries jurisdiction and the outer limit of the states. The 24-nautical mile Contiguous Zone and the 200-nautical mile Exclusive Economic Zone were established by Presidential Proclamation. By treaty or the U.S. Supreme Court, these maritime limits are subject to change.

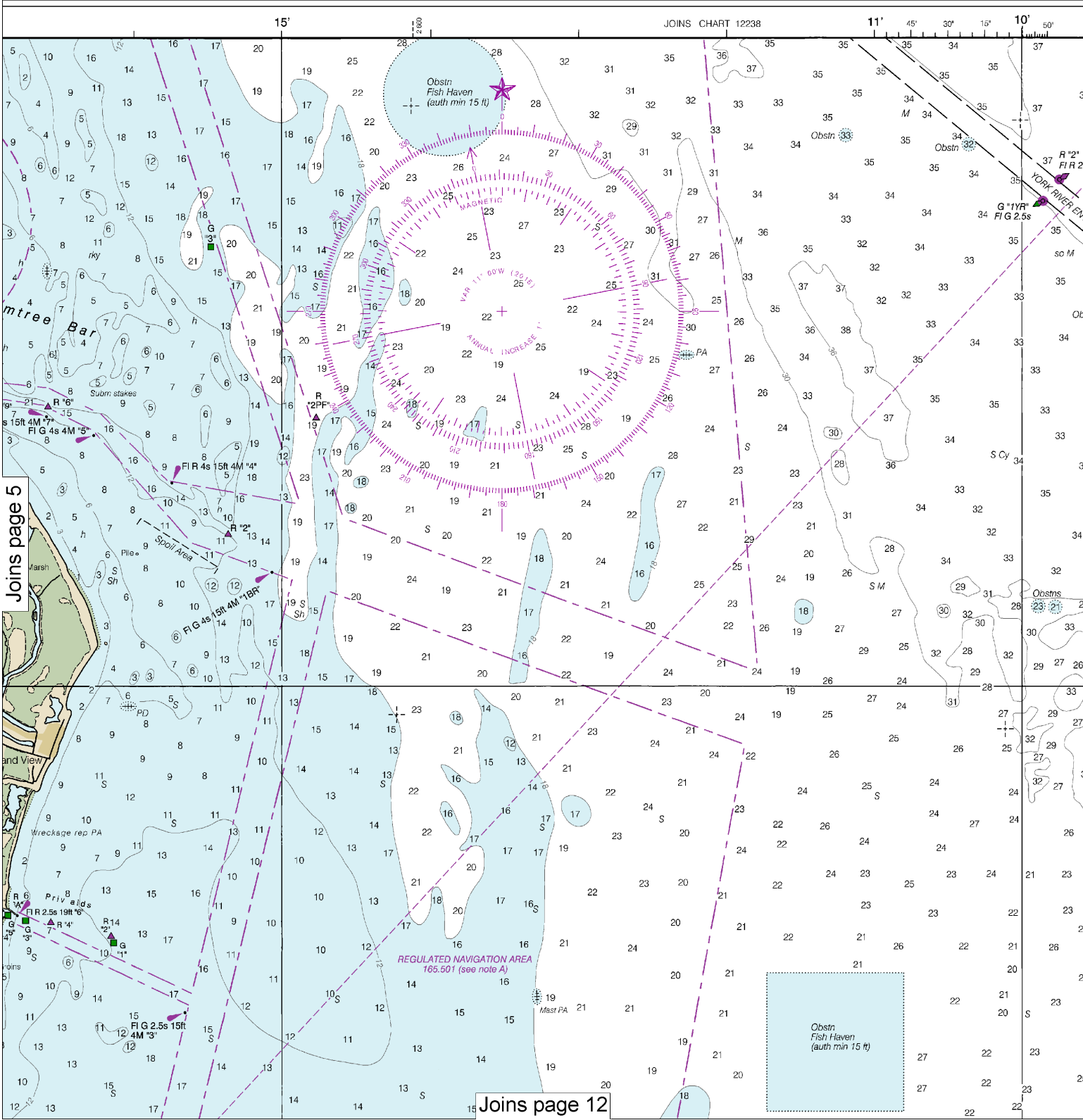
Additional information can be obtained at [nauticalcharts.noaa.gov](http://nauticalcharts.noaa.gov).

For Symbols and Abbreviations see Chart No. 1

COLREGS: International Regulations for Preventing Collisions at Sea, 1972.  
Demarcation lines are shown thus: - - - - -

### AUTHORITIES

Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, U.S. Coast Guard, and National Geospatial-Intelligence Agency.





TES - EAST COAST

RGINIA

PEAKE BAY

O NORFOLK HARBOR

22, 1st Ed., Mar. 1984 KAPP 559

Mercator Projection  
Scale 1:40,000 at Lat. 37° 00'

North American Datum of 1983  
(World Geodetic System 1984)

SOUNDINGS IN FEET  
AT MEAN LOWER LOW WATER

HEIGHTS

Heights in feet above Mean High Water.

SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 3 for important  
supplemental information.

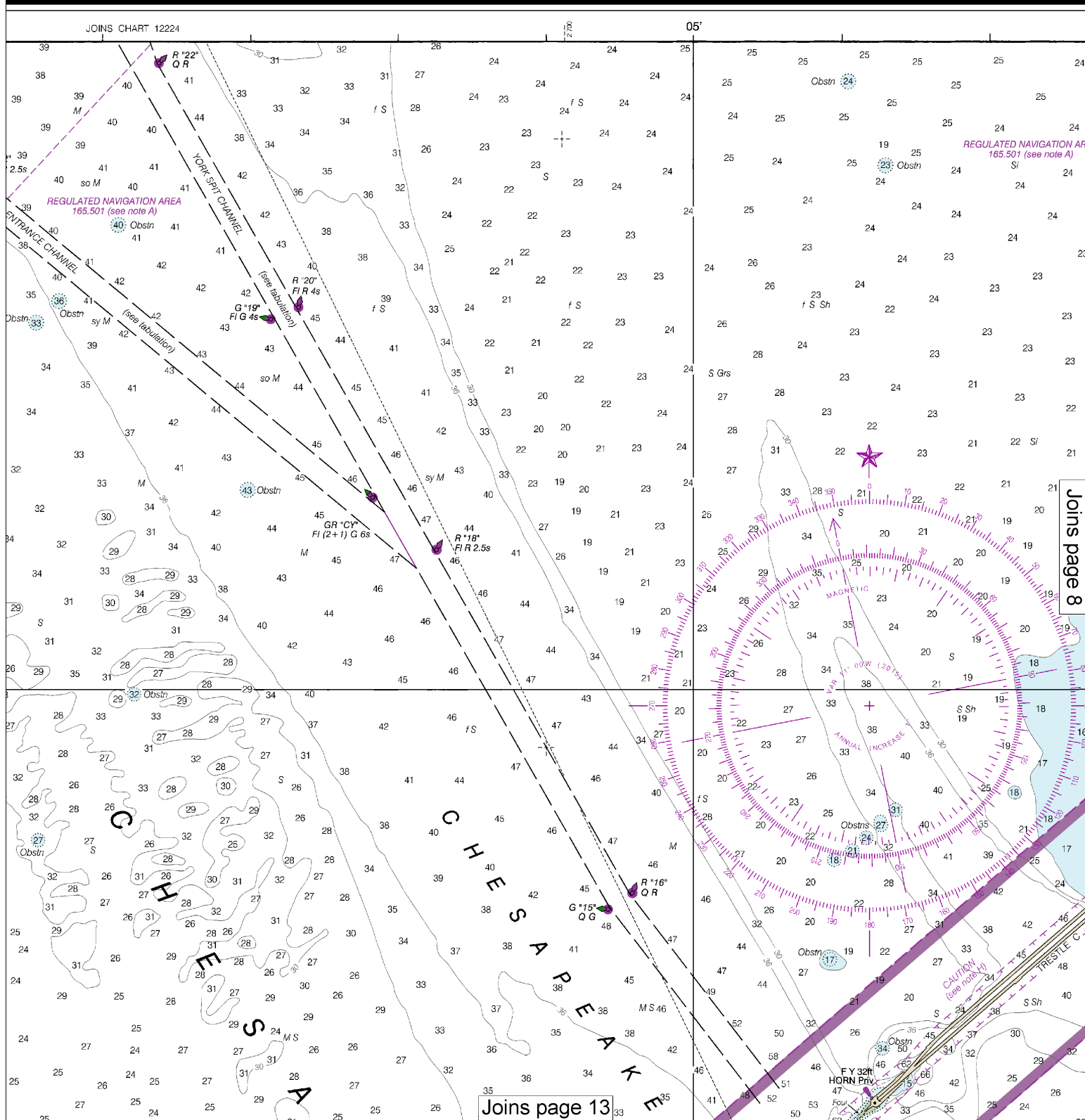
CAUTION

Improved channels shown by broken lines are  
subject to shoaling, particularly at the edges.

CAUTION

Limitations on the use of radio signals as  
aids to marine navigation can be found in the  
U.S. Coast Guard Light Lists and National  
Geospatial-Intelligence Agency Publication 117.  
Radio direction-finder bearings to commercial  
broadcasting stations are subject to error and  
should be used with caution.

Station positions are shown thus:  
⊙ (Accurate location) ○ (Approximate location)



Joins page 8

Joins page 13

Last Correction: 5/5/2016. Cleared through:  
LNM: 2516 (6/21/2016), NM: 2716 (7/2/2016)

7



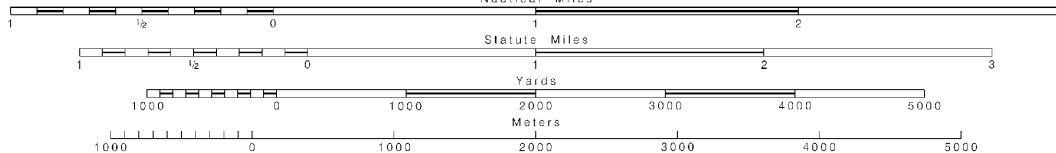


Light List for  
Aids to Navigation

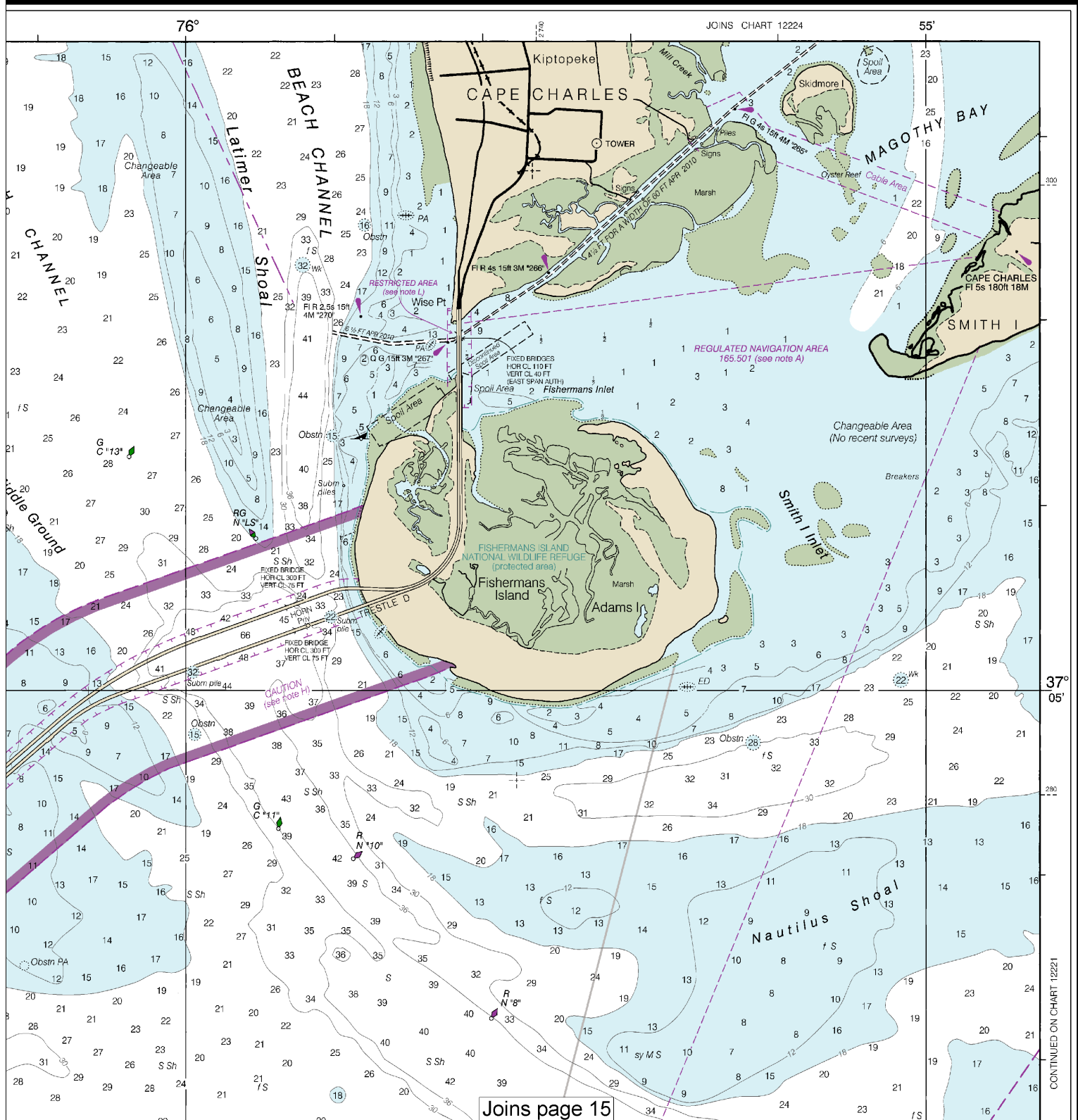
**CAUTION**  
Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

**RADAR REFLECTORS**  
Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

SCALE 1:40,000  
Nautical Miles



of this chart  
may be  
District  
le buoys are  
d Light List.



Joins page 15

Continued on Chart 12221

Avoid, as far as practicable, overtaking other ships operating in the deep-water route.  
Keep as near to the outer limit of the route which lies on the starboard side as is safe and practicable.

All other ships approaching the Chesapeake Bay traffic separation scheme should use the appropriate inbound or outbound traffic lane of the traffic separation scheme.

Traffic within the precautionary area may consist of vessels operating between Thimble Shoal and Chesapeake Channels and one of the established traffic lanes. Mariners are advised to exercise extreme care in navigating within this area. The normal Pilot Boarding Area is outlined by a magenta band.

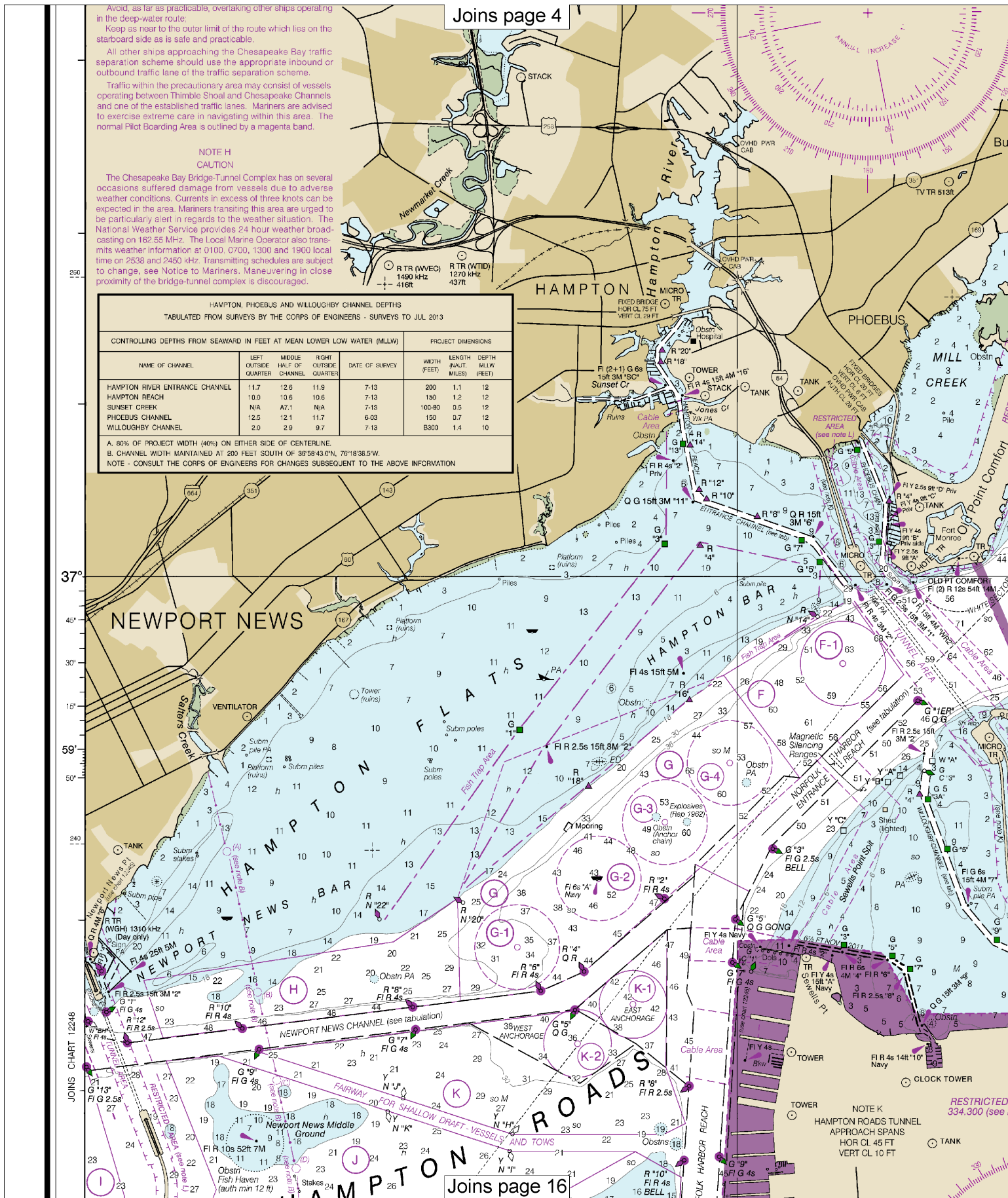
#### NOTE H CAUTION

The Chesapeake Bay Bridge-Tunnel Complex has on several occasions suffered damage from vessels due to adverse weather conditions. Currents in excess of three knots can be expected in the area. Mariners transiting this area are urged to be particularly alert in regards to the weather situation. The National Weather Service provides 24 hour weather broadcasting on 162.55 MHz. The Local Marine Operator also transmits weather information at 0100, 0700, 1300 and 1900 local time on 2536 and 2450 kHz. Transmitting schedules are subject to change, see Notice to Mariners. Maneuvering in close proximity of the bridge-tunnel complex is discouraged.

HAMPTON, PHOEBUS AND WILLOUGHBY CHANNEL DEPTHS TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO JUL 2013							
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)					PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)
HAMPTON RIVER ENTRANCE CHANNEL	11.7	12.6	11.9	7-13	200	1.1	12
HAMPTON REACH	10.0	10.6	10.6	7-13	150	1.2	12
SUNSET CREEK	N/A	A7.1	N/A	7-13	100-80	0.5	12
PHOEBUS CHANNEL	12.5	12.1	11.7	6-03	150	0.7	12
WILLOUGHBY CHANNEL	2.0	2.9	9.7	7-13	8300	1.4	10

A. 80% OF PROJECT WIDTH (40%) ON EITHER SIDE OF CENTERLINE.  
B. CHANNEL WIDTH MAINTAINED AT 200 FEET SOUTH OF 36°59'43.6"N, 76°18'36.5"W.  
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Joins page 4



Joins page 16

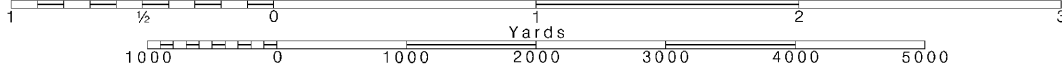
10

Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:40,000  
Nautical Miles

See Note on page 5.

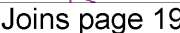


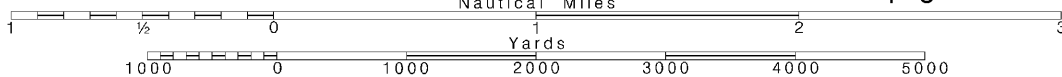


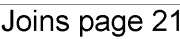




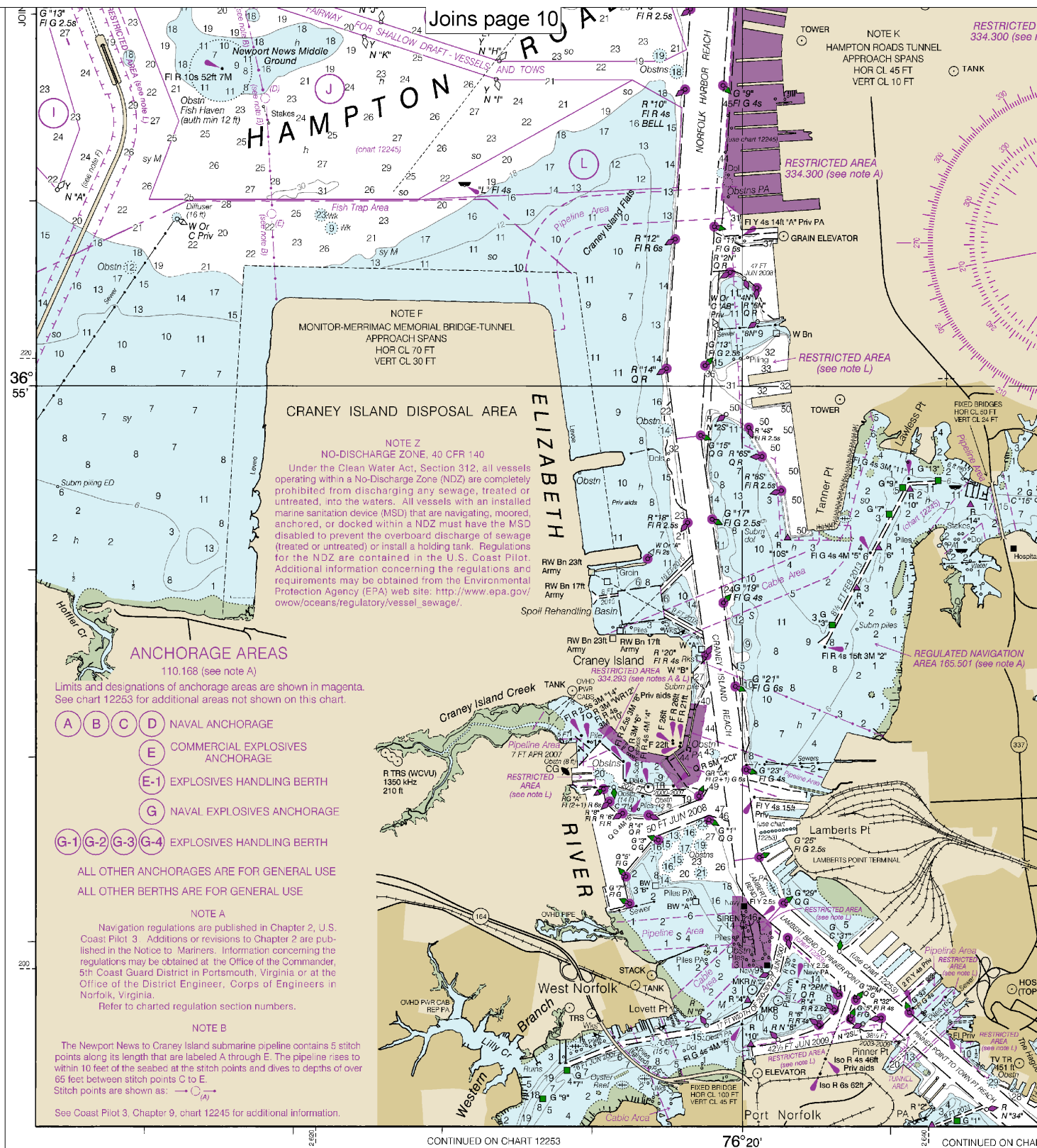












55th Ed., Feb. 2015

12222

Last Correction: 5/5/2016. Cleared through:  
LNM: 2516 (6/21/2016), NM: 2716 (7/2/2016)

### CAUTION

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at [nauticalcharts.noaa.gov](http://nauticalcharts.noaa.gov).

NOAA encourages users about this chart at <http://www>

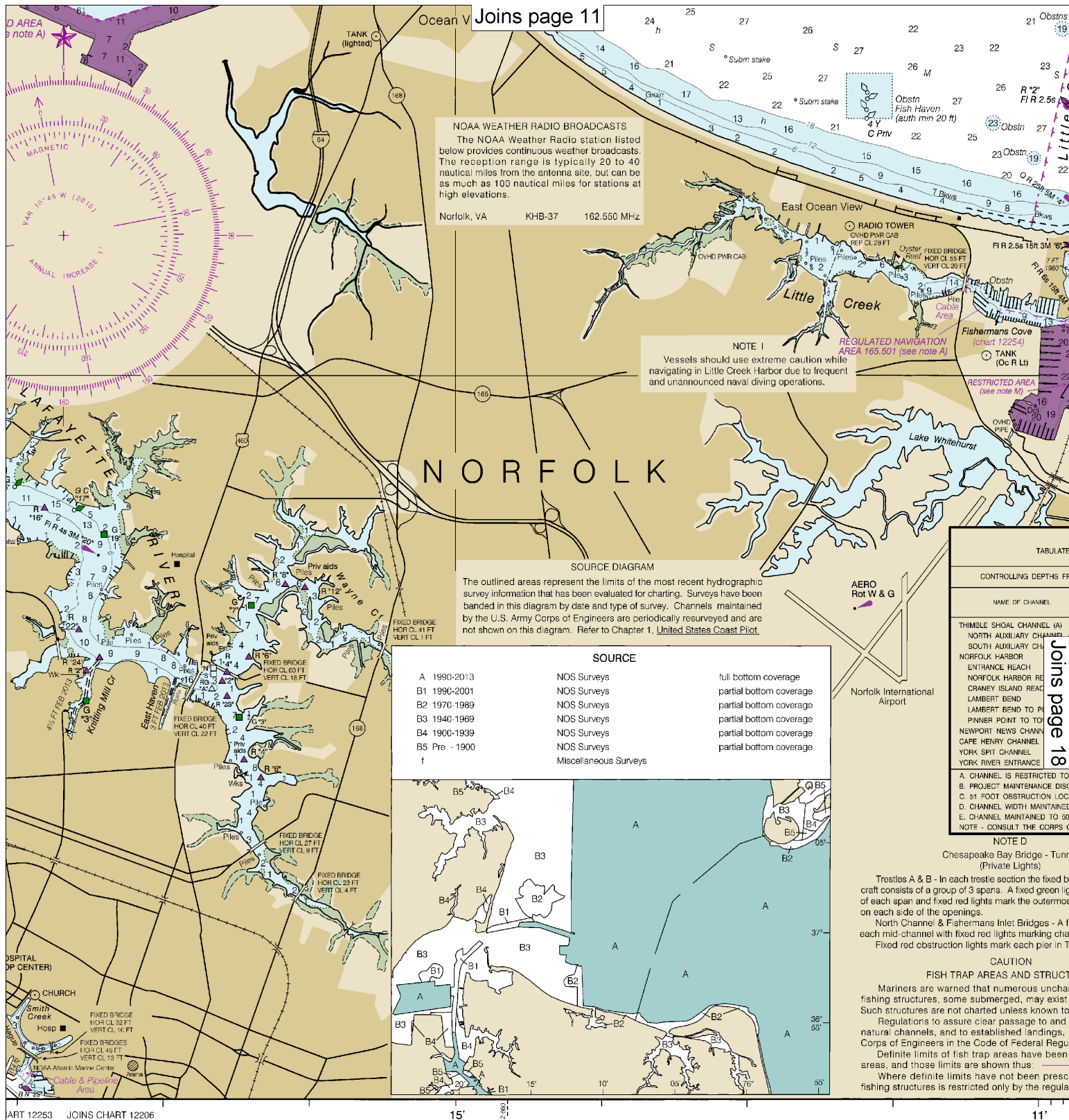
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

~~SCALE 1:40,000~~  
Nautical Miles

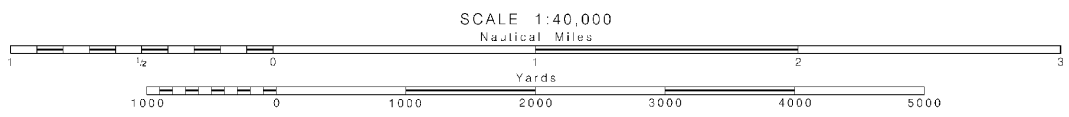
See Note on page 5.

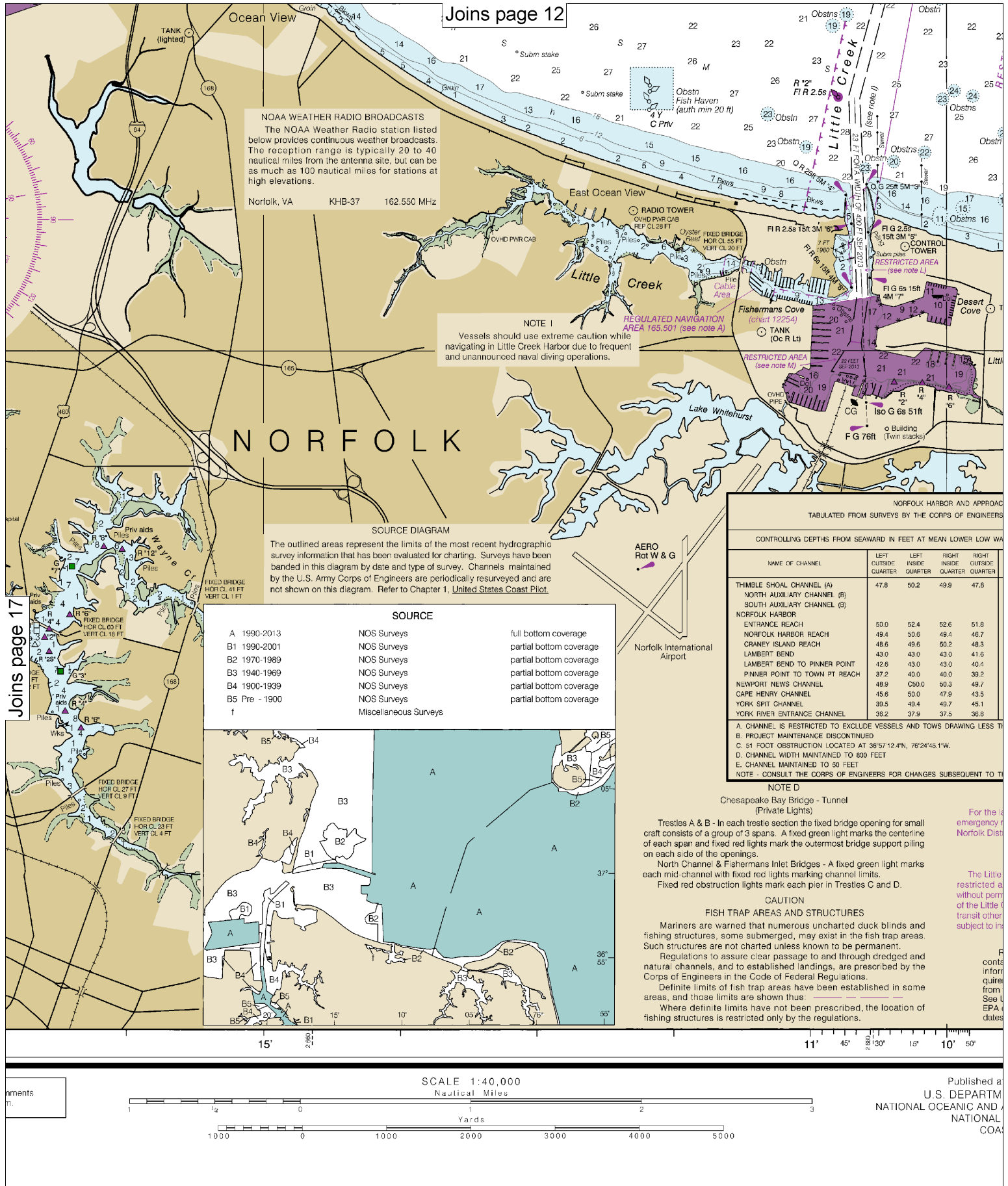
16



ART 12253 JOINS CHART 12206

to submit inquiries, discrepancies or comments  
w.nauticalcharts.noaa.gov/staff/contact.htm.



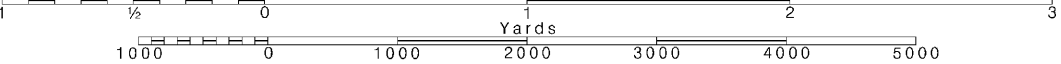


Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

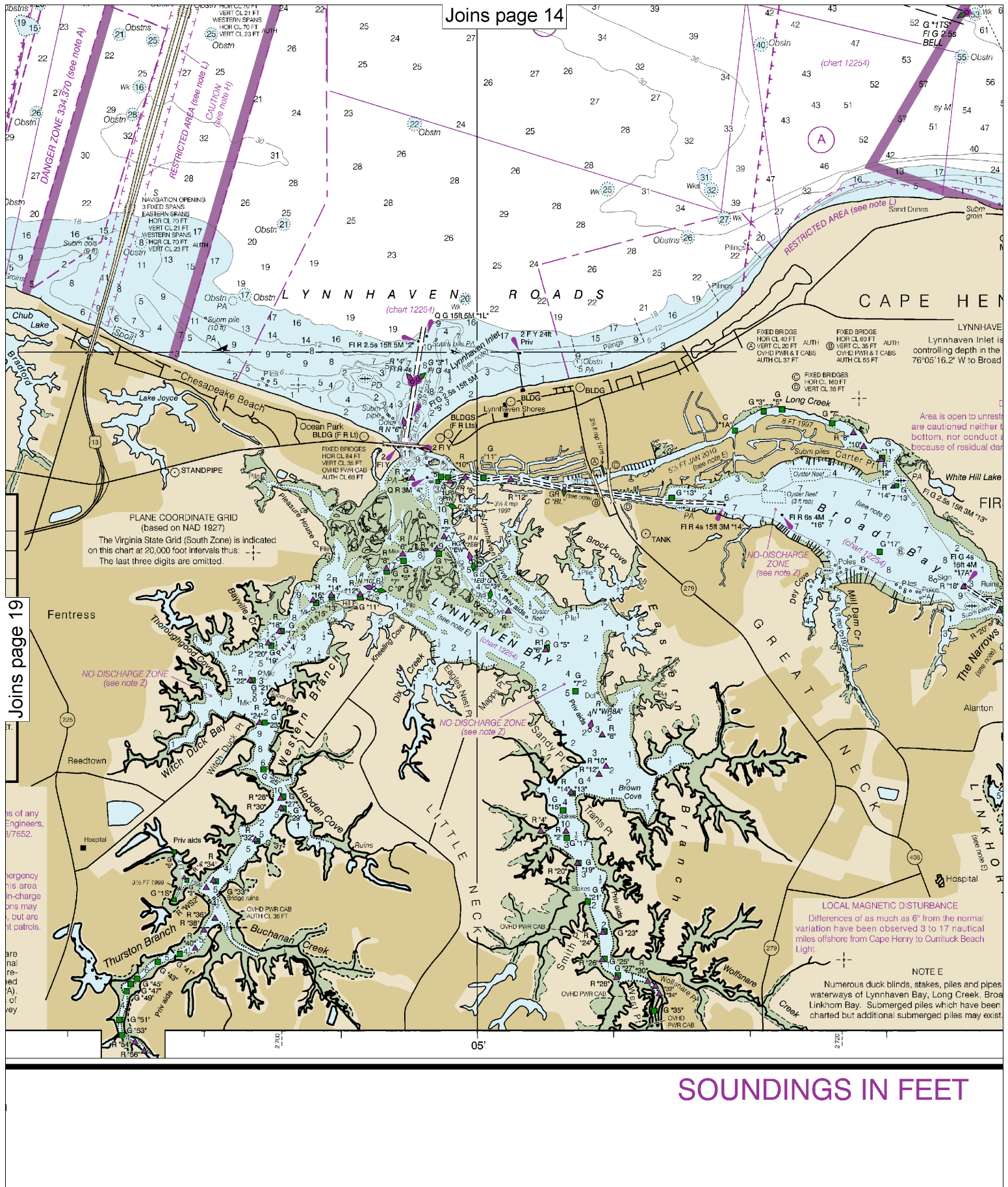
SCALE 1:40,000  
Nautical Miles

See Note on page 5.









Joins page 14

Joins page 19

PLANE COORDINATE GRID  
(based on NAD 1927)  
The Virginia State Grid (South Zone) is indicated  
on this chart at 20,000 foot intervals thus:  
The last three digits are omitted.

LOCAL MAGNETIC DISTURBANCE  
Differences of as much as 6° from the normal  
variation have been observed 3 to 17 nautical  
miles offshore from Cape Henry to Currituck Beach  
Light.

NOTE E  
Numerous duck blinds, stakes, piles and pipes  
waterways of Lynnhaven Bay, Long Creek, Broad  
Creek, and Linkhorn Bay. Submerged piles which have been  
charted but additional submerged piles may exist.

SOUNDINGS IN FEET

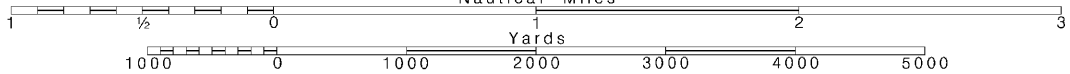
20

Note: Chart grid  
lines are aligned  
with true north.

Printed at reduced scale.

SCALE 1:40,000  
Nautical Miles

See Note on page 5.











EMERGENCY INFORMATION

## VHF Marine Radio channels for use on the waterways:

**Channel 6** – Inter-ship safety communications.

**Channel 9** – Communications between boats and ship-to-coast.

**Channel 13** – Navigation purposes at bridges, locks, and harbors.

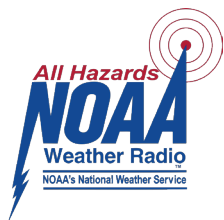
**Channel 16** – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other

vessels. Contact the other vessel, agree to another channel, and then switch.

**Channel 22A** – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.

**Channels 68, 69, 71, 72 and 78A** – Recreational boat channels.

**Getting and Giving Help** — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.



**NOAA Weather Radio All Hazards (NWR)** is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.

<http://www.nws.noaa.gov/nwr/>

## Distress Call Procedures

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
- Release transmit button.
- Wait for 10 seconds — If no response Repeat MAYDAY call.

**HAVE ALL PERSONS PUT ON LIFE JACKETS!**

## Quick References

Nautical chart related products and information	—	<a href="http://www.nauticalcharts.noaa.gov">http://www.nauticalcharts.noaa.gov</a>
Interactive chart catalog	—	<a href="http://www.charts.noaa.gov/InteractiveCatalog/nrnc.shtml">http://www.charts.noaa.gov/InteractiveCatalog/nrnc.shtml</a>
Report a chart discrepancy	—	<a href="http://ocsddata.ncd.noaa.gov/idrs/discrepancy.aspx">http://ocsddata.ncd.noaa.gov/idrs/discrepancy.aspx</a>
Chart and chart related inquiries and comments	—	<a href="http://ocsddata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs">http://ocsddata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs</a>
Chart updates (LNM and NM corrections)	—	<a href="http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html">http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html</a>
Coast Pilot online	—	<a href="http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm">http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm</a>
Tides and Currents	—	<a href="http://tidesandcurrents.noaa.gov">http://tidesandcurrents.noaa.gov</a>
Marine Forecasts	—	<a href="http://www.nws.noaa.gov/om/marine/home.htm">http://www.nws.noaa.gov/om/marine/home.htm</a>
National Data Buoy Center	—	<a href="http://www.ndbc.noaa.gov/">http://www.ndbc.noaa.gov/</a>
NowCoast web portal for coastal conditions	—	<a href="http://www.nowcoast.noaa.gov/">http://www.nowcoast.noaa.gov/</a>
National Weather Service	—	<a href="http://www.weather.gov/">http://www.weather.gov/</a>
National Hurricane Center	—	<a href="http://www.nhc.noaa.gov/">http://www.nhc.noaa.gov/</a>
Pacific Tsunami Warning Center	—	<a href="http://ptwc.weather.gov/">http://ptwc.weather.gov/</a>
Contact Us	—	<a href="http://www.nauticalcharts.noaa.gov/staff/contact.htm">http://www.nauticalcharts.noaa.gov/staff/contact.htm</a>



— For the latest news from Coast Survey, follow **@NOAAcharts**



This Booklet chart has been designed for duplex printing (printed on front and back of one sheet). If a duplex option is not available on your printer, you may print each sheet and arrange them back-to-back to allow for the proper layout when viewing.